

Q1 => User Thread => User Level Thread are faster to create & manage. Implemented by a thread library at User level. It is generic & can run on any O.S.

Kernel Thread => It is slower to create and manage. O.S. supports creation of kernel threads. It is specific to the O.S. Kernel routines themselves can be multithreaded.

Q2 => Starvation is similar to deadlock in that it causes a process to freeze. Two or more processes become deadlocked when each of them is doing nothing while waiting for a resource occupied by another. Aging is a condition which is used to reduce starvation of low priority tasks.

Q3 => Long Term Scheduler => It is also called a Job scheduler. It determines which programs or ~~system~~ ^{processes} are admitted to the system for processing.

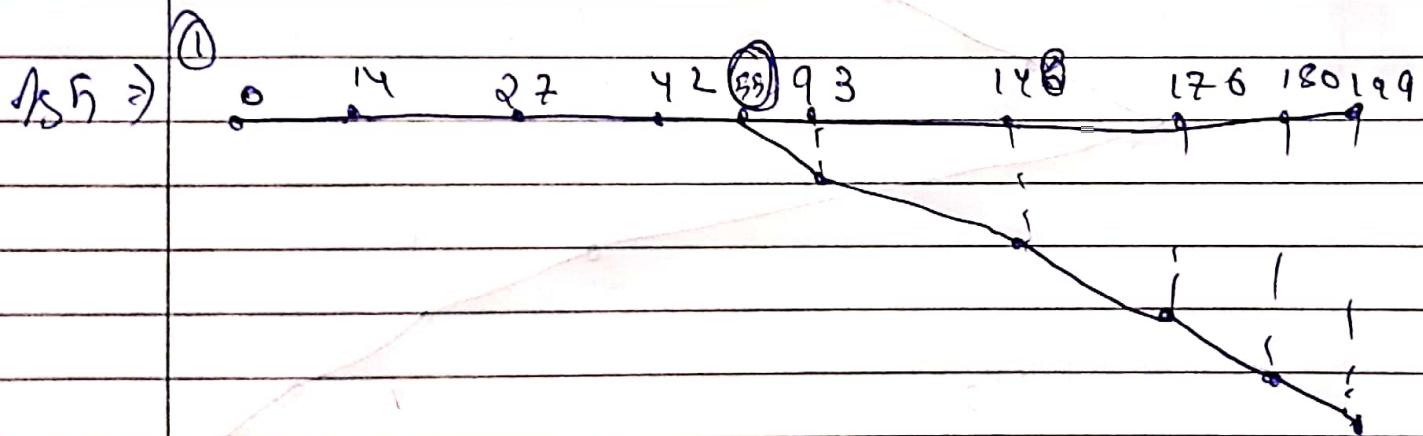
Mid Term Scheduler => It is a part of swapping. It removes the processes from the memory. It reduces degree of multiprogramming.

Short Term Scheduler \Rightarrow Also known as CPU scheduler. It decides which of the ready, in memory process is to be executed after an interrupt, an I/O interrupt, an o.s. call or another ~~form~~ form of signal.

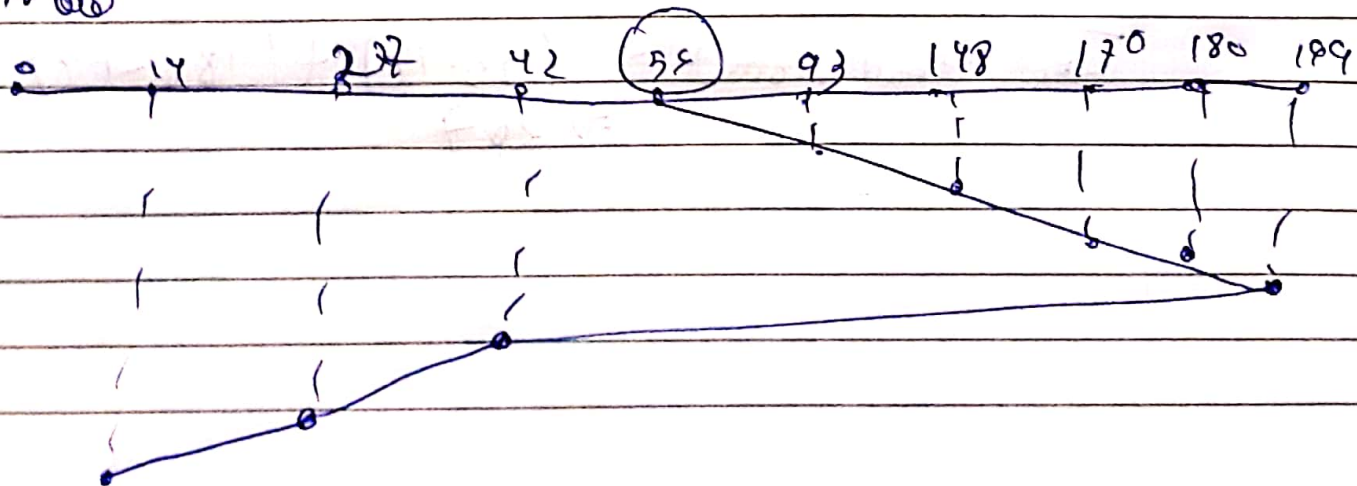
Ans \Rightarrow No. of entries in page table = $2^{32} / 4 \text{ Kbytes}$
 $= 2^{32} / 2^{12}$
 $= 2^{20}$

Size of Page Table = (No. page Table entries) * (Size of an entry)
 $= 2^{20} \times 4 \text{ bytes}$
 $= 2^{22}$

$\Rightarrow 4 \text{ Megabytes}$

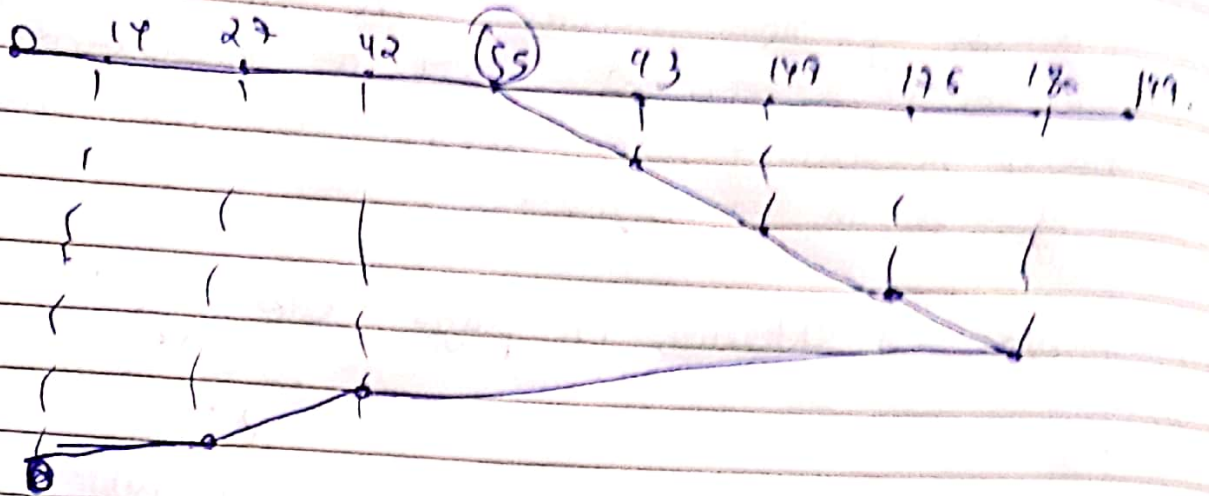


Now



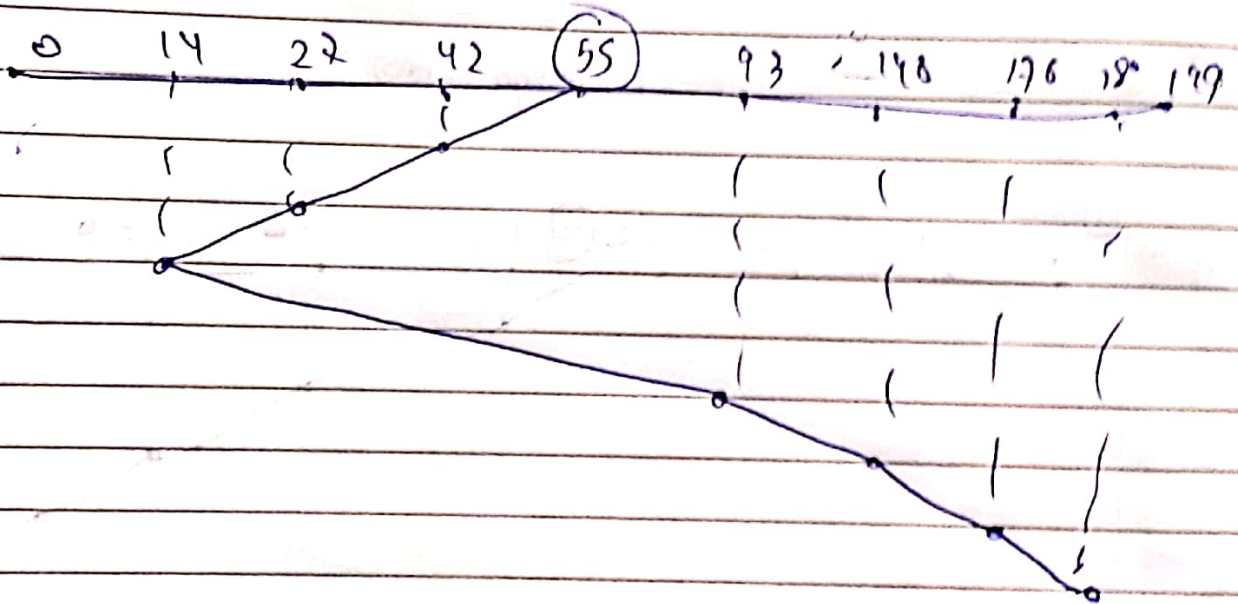
Total Head moment $\rightarrow (129 - 55) + (129 - 14)$
 $= 329$

(2)



Total head Moment $\rightarrow (180 - 55) + (180 - 14) = 291$

(3)



Total Head Moment $\rightarrow (55 - 14) + (180 - 14)$
 $\Rightarrow 207$